

Patent Claims:

- 5 1. Method of feeding sheets of printing material in a printing machine, preferably a digital printing machine, on a continuous loop transport means, in particular a transport belt, which has at least one dead space section, specifically a seam, and which is preferably included in a transport path which permits the alternate selection between simplex printing and duplex printing,
10 in which case it has been taken into account that a region, preferably the leading edge of a respective sheet on the transport means, is detected for the control of a printing process by means of a detecting device,

characterized in that

- 15 when a sheet is fed, its region to be detected is prevented from entering the dead space section of the transport means.

2. Method as in Claim 1, **characterized in that** the feeding time for a sheet, which has its detectable region fall within the dead space section, is delayed by a period which corresponds to the size of the dead space section in
20 transport direction divided by the transport speed of the transport means.

3. Method as in Claim 1 or 2, **characterized in that** when the sheet is fed for obverse printing, said sheet, or its region to be detected, is prevented from entering a section to be occupied by a sheet to be printed on the reverse
25 side.

4. Method as in Claim 3, **characterized in that** the feeding time for the sheet, which is to be detected or which has a detectable region fall within the section of the sheet to be printed on the reverse side, is delayed by a period

which corresponds to the size of this said section in transport direction divided by the transport speed of the transport means.

5. Method as in one of the previous claims, in particular as in Claim 4, **characterized in that**, considering the section of a sheet, said sheet's length in transport direction and a required intermediate space relative to a subsequent sheet are taken into account.
6. Method as in Claim 5, **characterized in that**, considering the section of a sheet, in addition, a space for register marks on the transport means is taken into account.
7. Method as in Claim 5 or 6, **characterized in that**, considering the section of a sheet, in addition, the length of time multiplied by the transport speed, which requires a set-up of the printing machine for said sheet's preparation or said machine's resetting in response to control information for its function as part of the printing process, is taken into consideration.
8. Method as in one of the previous claims, **characterized in that**, for duplex printing, the feeding time of the sheet to be printed on the obverse side is coordinated with the feeding time for the same sheet to be printed on the reverse side.
9. Method as in one of the previous claims, in particular as in Claim 8, **characterized in that**, when the sheets are fed, the mixing of a printing order consisting of sheets to be duplex-printed with sheets to be simplex-printed is prevented.
10. Method as in one of the previous claims, in particular as in Claims 5 through 7, **characterized in that**, when the transport means is (fully) loaded

between the dead space section and its return after one cycle of the transport means, the sections to be occupied by the sheets are distributed uniformly on the transport means.